Fast Ethernet Media Converter
100Base-FX
Multi-mode to Single-mode

Trademarks

Copyright © PLANET Technology Corp. 2004.
Contents subject to revision without prior notice.
PLANET is a registered trademark of PLANET Technology Corp. The information in this manual is subject to change without notice. All other trademarks belong to their respective owners.

Disclaimer

PLANET Technology does not warrant that the hardware will work properly in all environments and applications, and makes no warranty and representation, either implied or expressed, with respect to the quality, performance, merchantability, or fitness for a particular purpose.
PLANET has made every effort to ensure that this User's Manual is accurate; PLANET disclaims liability for any inaccuracies or omissions that may have occurred.
Information in this User's Manual is subject to change without notice and does not represent a commitment on the part of PLANET. PLANET assumes no responsibility for any inaccuracies that may be contained in this User's Manual.
PLANET makes no commitment to update or keep current the information in this User's Manual, and reserves the right to make improvements to this User's Manual and/or to the products described in this User's Manual, at any time without notice.
If you find information in this manual that is incorrect, misleading, or incomplete, we would appreciate your comments and suggestions.

FCC Warning

This equipment has been tested and found to comply with the regulations for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Revision

User's manual for PLANET Fast Ethernet Converter
Model: FT-722
Rev 1.0 (March.2004)
Part No. 2010-000030-000

1. Overview

Thank you for purchasing PLANET FT-722 Fast Ethernet Fiber-optic Media Converter. This converter is used to convert one type media signal to other type equivalent that allows two type segments connect easily, efficiently and inexpensively.

This converter can be used as a standalone unit or as a slide-in module to the 10”/19” media chassis (up to 15 units) for a TP and Fiber combined networks at a central wiring closet. Please contact with your sales representative for more about the 19” media chassis.

2. Model List

Your Fast Ethernet Converter comes with one of the following models.

- FT-722Sxx: two on board SC fiber connectors

Sxx represents Single-model optic interface in xx kilometers. In the following sections, the term “ FT-722” indicates the product above, the term “MM” and “SM” represents Multi-mode and Single Mode fiber-optic mode.

3. Checklist

Your FT-722 carton should contain the following items:

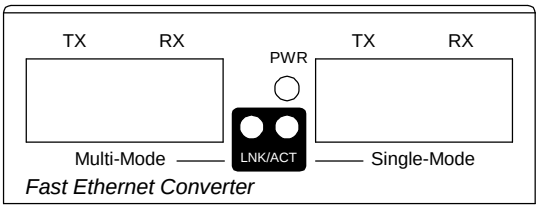
- The Fast Ethernet Media Converter
- AC-DC Power Adapter (Output: 5VDC, 2 A max.)
- This user’s manual

If any item is missing or damaged, please consult the dealer from whom you purchased your Fast Ethernet Converter.

4. Product Outlook

Left View

There are two fiber-optic connectors, multi-mode on the left, single-mode on the right and three LED indicators.



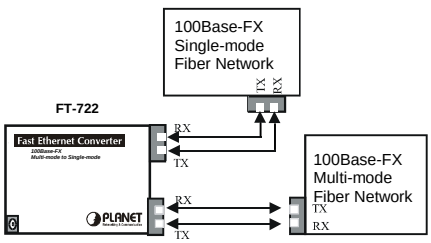
Right View

One DIP switch for Link Fault Pass Through (LFP) feature, “ON” to turn-on the LLCF and LLR detection (default). And “OFF” to turn –off this feature.

5. Installing the Converter

Please follow these steps to install the converter:

- Turn off the power of the device/station in a network to which the FT-722 will be attached
- Ensure that there is no activity in the network
- Attach MM fiber cable from the FT-722 to the MM fiber network. TX, RX must be paired at both ends
- Attach SM fiber cable from the FT-722 to the SM fiber network. TX, RX must be paired at both ends.
- Connect the 5VDC power adapter to the FT-722 and verify that the Power LED lights up.
- Turn on the power of the device/station, the LNK /ACT LEDs should light when all cables are attached.



Note:

n To prevent from optic acceptor malfunction, check the both end including, connectors, cable type (MM/SM), and wiring distance before power on the Media Converter.

n DIP-switch LFP is turn on by default, any broken link will cause the other end link down as well. To diagnose which end is broken, please turn off the LFP and power off/on the converter again. Please remains it on in normal operation.

6.LED indication

LED	COLOR	DESCRIPTION
LNK / ACT	Green	Blinks: when any FX packets transmitting and receiving
		Lit: when Fiber connection is good
PWR	Green	Lit when +5VDC power detected

7. Cable Connection Parameter

Fast Ethernet 100Base-FX networks allow 512bit time delay between any two-node stations in a collision domain.
The overall bit time of Fiber wires and devices must be within 512bit time in segment. To extend the distance, you may use switch to break up a collision domain and extend the distance.

The limitations are as below:

Duplex	Connection	Limitation (max.)
Multi-Mode		
MM Half	Node to Node Node to Switch	412 meters*
MM Full	Node to Node Node to Switch	2 kilometers
Single-Mode		
SM Half	Node to Node Node to Switch	412 meters*
SM Full	Node to Node Node to Switch	Varies on model

Note:

- In half-duplex mode, 412 meters is the maximum distance between two devices. To force both devices to full-duplex for optimal distance is strongly recommended.

8. FT-722 Technical Specifications

The FT-722 comes with the following standard features:

- **Standard:** IEEE802.3u, 100Base-FX, IEEE802.3x Flow control
- **Connectors**
  - ð One Fiber-optic, 1310nm wavelength, MM
  - ð One Fiber-optic, 1310nm wavelength, SM
- **Data Transfer Rate:** 100Mbps, 200Mbps (full-duplex)
- **LED indicators:** PWR, LNK/ACT
- **Power Requirement:** 5V DC, 2A
- **Ambient Temperature:** 0° to 50°C (operating)
- **Humidity:** 5% to 90% (non-condensing)
- **Dimension:** 26 x 70 x 97mm (HxWxD)

- **Cable:**
  - ð Fiber: MM: 50/125 ㎛m or 62.5/125 ㎛m optic fiber
  - ð Fiber: SM: 8.3/125, 8.7/125, 9/125 ㎛m optic fiber

Connecting to Router, Bridge, or Switch, Hub, please refer to the device's Technical Manual.

9. Power information

The power jack of FT-722 is with 2.5mm in the central post and required +5VDC power input. It will conform to the bundled AC-DC adapter and Planet's Media Chassis. Should you have the problem to make the power connection, please contact your local sales representatives.
Please keep the AC-DC adapter as spare parts when your FT-722 is installed to a Media Chassis.

Part No. 2010-000030-000

CE